

## Lack of association between the TGF- $\beta$ 1 gene polymorphisms and recurrent spontaneous abortion

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### Abstract

Transforming growth factor- $\beta$ 1 (TGF- $\beta$ 1) is produced by T regulatory lymphocytes (Treg), which play an important role in the physiology of pregnancy. Several polymorphisms of the TGF- $\beta$ 1 gene (*TGFB1*) have been reported, some with an important correlation with TGF- $\beta$ 1 production and disease severity. We performed an association study between *TGFB1* polymorphisms and recurrent spontaneous abortion (RSA). We first used a PCR-RFLP method to detect three known *TGFB1* cSNPs (coding single nucleotide polymorphisms) among 111 RSA and 110 normal control women from Southern Iran, such as 29T  $\rightarrow$  C (Leu 10 Pro), 74G  $\rightarrow$  C (Arg 25 Pro) and 788 C  $\rightarrow$  T (Thr 263Ile), and compared their frequencies between the two groups of subjects. To confirm results of the RFLP study and to identify new SNPs in the RSA women, we then sequenced their DNA samples for seven exons and adjacent intronic regions of *TGFB1*. Consequently, 10 SNPs were detected; one

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